

Dimethyl Phosphorochloridate: sc-211350



MATERIAL SAFETY DATA SHEET

The Power to Question

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Dimethyl Phosphorochloridate
Catalog Number: sc-211350
Synonyms: Dimethyl chlorophosphate
Supplier: Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, CA 95060
800.457.3801 or 831.457.3800
Emergency: ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255 (1-800-CHEMCALL) or call +613 9573 3112

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Water reactive. Contact with water liberates toxic gas. May be fatal if inhaled, absorbed through skin, or swallowed. Causes burns by all exposure routes.

Target Organs Respiratory system, Eyes, Skin, Gastrointestinal tract (GI)

Potential Health Effects

Acute Effects

Principle Routes of Exposure

Eyes	Causes burns.
Skin	May be fatal if absorbed through skin. Causes burns.
Inhalation	May be fatal if inhaled. Causes burns.
Ingestion	May be fatal if swallowed. Causes burns.
Chronic	Effects None known.

Aggravated Medical Conditions No information available.

See Section 11 for additional Toxicological information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component Dimethyl chlorophosphate

CAS-No 813-77-4

4. FIRST AID MEASURES

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

Ingestion Do not induce vomiting. Call a physician or Poison Control Center immediately.

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point 113°C / 235.4°F

Method No information available.

Autoignition Temperature No information available.

Explosion Limits

Upper No data available

Lower No data available

Suitable Extinguishing Media CO₂, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media DO NOT USE WATER!

Hazardous Combustion Products No information available.

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

Specific Hazards Arising from the Chemical Contact with water liberates toxic gas.

Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Up Soak up with inert absorbent material. Keep in suitable and closed containers for disposal. Do not expose spill to water.

7. HANDLING AND STORAGE

Handling Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Do not allow contact with water. Do not breathe vapors/dust. Do not ingest.

Storage Keep away from water. Corrosives area. Keep container tightly closed in a dry and well ventilated place. Store in freezer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

NIOSH IDLH: Immediately dangerous to life or health

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and Body Protection Wear appropriate protective gloves and clothing to prevent skin exposure. Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Appearance	Not available
Odor	Not available	Odor Threshold	Not available
pH	Not available	Vapor Pressure	Not available
Vapor Density	Not available	Viscosity	Not available
Boiling Point/Range (@ 25 mmHg)	80°C / 176°F	Melting Point/Range	Not available
Decomposition temperature	Not available	Flash Point	113°C / 235.4°F
Evaporation Rate	Not available	Specific Gravity	1.34
Solubility	Not available	log Pow	Not available
Molecular Weight	144.49	Molecular Formula	C ₂ H ₆ ClO ₃ P

10. STABILITY AND REACTIVITY

Stability Water reactive. Moisture sensitive.

Conditions to Avoid Incompatible products. Excess heat. Exposure to moist air or water. Exposure to moisture.

Incompatible Materials Strong oxidizing agents

Hazardous Decomposition Products Carbon monoxide (CO), carbon dioxide (CO₂), hydrogen chloride gas, oxides of phosphorus

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions Contact with water liberates toxic gas.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information No acute toxicity information is available for this product

Component Information

Irritation Causes burns by all exposure routes

Toxicologically Synergistic Products Not available

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in this product.

Sensitization Not available

Mutagenic Effects Not available

Reproductive Effects Not available

Developmental Effects Not available

Teratogenicity Not available

Other Adverse Effects The toxicological properties have not been fully investigated.

Endocrine Disruptor Information Not available

12. ECOLOGICAL INFORMATION

Ecotoxicity Do not empty into drains.

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT

UN-No UN2927

Proper Shipping Name TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.

Proper Technical Name Dimethyl chlorophosphate

Hazard Class 6.1

Subsidiary Hazard Class 8

Packing Group I

TDG

UN-No UN2927

Proper Shipping Name TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.

Hazard Class 6.1

Subsidiary Hazard Class 8

Packing Group I

IATA**UN-No** UN2927**Proper Shipping Name** Toxic liquid, corrosive, organic, n.o.s**Hazard Class** 6.1**Subsidiary Hazard Class** 8**Packing Group** I**IMDG/IMO****UN-No** UN2927**Proper Shipping Name** Toxic liquid, corrosive, organic, n.o.s**Hazard Class** 6.1**Subsidiary Hazard Class** 8**Packing Group** I**15. REGULATORY INFORMATION****International Inventories Legend:**

X – Listed

E – Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F – Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N – Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P – Indicates a commenced PMN substance

R – Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S – Indicates a substance that is identified in a proposed or final Significant New Use Rule

T – Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU – Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 – Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 – Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations**TSCA 12(b)** Not applicable**SARA 313** Not applicable**SARA 311/312 Hazardous Categorization****Acute Health Hazard** Yes**Chronic Health Hazard** No**Fire Hazard** No**Sudden Release of Pressure Hazard** No**Reactive Hazard** Yes**Clean Water Act** Not applicable**Clean Air Act** Not applicable**OSHA** Not applicable**CERCLA** Not Applicable**California Proposition 65** This product does not contain any Proposition 65 chemicals.**State Right-to-Know** Not applicable**U.S. Department of Transportation****Reportable Quantity (RQ):** N**DOT Marine Pollutant** N**DOT Severe Marine Pollutant** N**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.**Other International Regulations****Mexico – Grade** Slight risk, Grade 1**Canada** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

D1A Very toxic materials

E Corrosive material



16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

1/5/2012